

*Sub A17*

I claim:

5 1. A device in a network including at least three devices, comprising:  
a receiver designed to receive a communication from at least one other device;  
a transmitter designed to transmit messages to at least one other device; and  
a synchronization system designed to synchronize with a second device.

2. A device according to claim 1, further comprising a synchronization table  
listing synchronization information for the device.

10 3. A device according to claim 2, wherein the synchronization table includes a  
device identifier, a communications frequency, a communications technology, and a time  
interval for resynchronization.

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4. A device according to claim 1, wherein the synchronization system includes  
an arbitrator for arbitrating a communications frequency, a communications technology, and  
a time interval with the second device.

5. A device according to claim 4, wherein the synchronization system further  
includes a synchronization table updater designed to update a synchronization table to reflect  
a device identifier for the second device, the communications frequency, the communications  
technology, and the time interval.

25 6. A method for a first device to communicate with a second device in a network  
including at least the first device, the second device, and a third device, comprising:  
discovering the second device;  
determining a synchronization period with the second device; and  
synchronizing with the second device independently of the third device.

30 7. A method according to claim 6, further comprising:  
discovering the third device;  
determining a synchronization period with the third device; and  
synchronizing with the third device independently of the second device.

8. A method according to claim 7, further comprising:  
discovering the third device by the second device;  
determining a synchronization period between the second device and the third device;

and

5 synchronizing the second device with the third device independently of the first device.

9. A method according to claim 6, wherein discovering a second device includes discovering a second device within range of the first device.

10 10. A method according to claim 6, wherein determining a synchronization period includes arbitrating a time interval between synchronizations.

11. A method according to claim 10, further comprising re-synchronizing with the second device after the time interval.

12. A method according to claim 6, wherein determining the synchronization period includes arbitrating a frequency for communicating between the first device and the second device.

13. A method according to claim 6, wherein determining the synchronization period includes arbitrating a communications technology for communicating between the first device and the second device.

14. A method according to claim 6, wherein synchronizing with the second device includes resetting a clock in the first device.

15. A method according to claim 6, wherein synchronizing with the second device includes informing the second device that the first device has data to transmit.

16. A method according to claim 14, further comprising:  
arbitrating a time to transmit the data to the second device; and  
transmitting the data to the second device at the arbitrated time.

17. A method according to claim 6, further comprising determining a new synchronization period with the second device.

18. A method according to claim 17, wherein determining a new synchronization period includes determining at least one of a new frequency, a new communications technology, and a new time interval.

19. An article comprising:  
a storage medium, said storage medium having stored thereon instructions that, when executed by a first device in a network including at least the first device, a second device, and a third device, result in

discovering the second device;  
determining a synchronization period with the second device; and  
synchronizing with the second device independently of the third device.

20. An article according to claim 19, further comprising:  
discovering the third device;  
determining a synchronization period with the third device; and  
synchronizing with the third device independently of the second device.

21. An article according to claim 19, further comprising:  
discovering the third device by the second device;  
determining a synchronization period between the second device and the third device;

and  
synchronizing the second device with the third device independently of the first device.

22. An article according to claim 19, wherein discovering a second device includes discovering a second device within range of the first device.

23. An article according to claim 19, wherein the storage medium has further stored thereon instructions, that, when executed by the first device, result in determining a synchronization period includes arbitrating a time interval between synchronizations.

24. An article according to claim 23, further comprising re-synchronizing with the second device after the time interval.

25. An article according to claim 19, wherein determining the synchronization period includes arbitrating a frequency for communicating between the first device and the second device.

26. An article according to claim 19, wherein determining the synchronization period includes arbitrating a communications technology for communicating between the first device and the second device.

27. An article according to claim 19, wherein synchronizing with the second device includes resetting a clock in the first device.

28. An article according to claim 19, wherein synchronizing with the second device includes informing the second device that the first device has data to transmit.

29. An article according to claim 28, wherein the storage medium has further stored thereon instructions, that, when executed by the first device, result in:  
arbitrating a time to transmit the data to the second device; and  
transmitting the data to the second device at the arbitrated time.

30. An article according to claim 19, wherein the storage medium has further stored thereon instructions, that, when executed by the first device, result in determining a new synchronization period with the second device.

31. An article according to claim 30, wherein determining a new synchronization period includes determining at least one of a new frequency, a new communications technology, and a new time interval.